

2/33 Fig. 2

10 20 30 40 50	
1234567890 1234567890 1234567890 1234567890 1234567890	
CCTTATAGAA GGACCCCTAG TATGGGGTAA TCCCCTCTGG GAAACCAAGC	50
AYRRTPSMG. SPLGNQA	
LIE GPLV WGN PLW ETK P	
L. K DP. YGVI PSG KPS	
CCCAGIACIC AGCAGGAAAA ATAGAATAGG AAACCICACA AGGACATACI	100
PVL SRKN RIG NLT RTYF	
QYSAGKIE.ETSQGHT	
PSTQQEK.NR KPHK DIL	
TICCICCCCT CCAGATGCCT AGCCACTGAG GAAGGAAAAA TACITICACC	150
PPL QMASH.GRKN TFT	
FLPSRWL ATE EGKI LSP	
SSPPDG. PLR KEKYFHL	
TGCAGCTAAC CAACAGAAAT TACTTAAAAC CCTTCACCAA ACCTTCCACT	200
CS. PTEIT. N PSPN LPL	
AAN OOKL LKT LHQ TFHL	
Q L T N R N Y L K P F T K P S T	
TAGGCATIGA TAGCACCCAT CAGATGGCCA AATTATTATT TACTGGACCA	250
RH. HPS DGQ III YWTR	
GID STH OMAK LLF TGP	
. A L I A P I R W P N Y Y L L D Q	
GCCTTTTCA AAACTATCAA GAAGATAGTC AGGGGCTGTG AAGTGTGCCA	300
PFONYOEDSQGL.SVP	
GLFK TIK KIV RGCE VCQ	
AFSKLSRR.SGAVKCAK	
AAGAAATAAT	310
K K .	
R N N	
EI	

3/33 Fig. 3A

10 20 30 40 50 1234567890 1234567890 1234567890 1234567890	
CCCIGIATCT TTAACCICCT TGITAAGIIT GICICTICCA GAATCAAAAC PCIFNLLVKFVSSRIKT PVSLTSLLSLSLPESKL LYL.PPC.VCLFQNQN	50
TGIAAAACIA CAAATIGIIC TICAAATGGA GCACCAGATG GAGICCATGA V K L Q I V L Q M E H Q M E S M T . N Y K L F F K W S T R W S P . C K T T N C S S N G A P D G V H D	100
CTAACATCCA CCGTGGACCC CTGGACCGC CTGCTAGCCC ATGCTCCGAT  K I H R G P L D R P A S P C S D  L R S T V D P W T G L L A H A P M  . D P P W T P G P A C . P M L R C	150
GITAATGACA TIGAAGGCAC COCTOCOGAG GAAATCICAA CIGCACAACC V N D I E G T P P E E I S T A Q P L M T L K A P L P R K S Q L H N P H . R H P S R G N L N C T T	200
CCTACTATICC CCCAATTCAG CGGGAAGCAG TTAGAGCGGT CATCAGCCAA L L C P N S A G S S . S G H Q P T Y Y A P I Q R E A V R A V I S Q P T M P Q F S G K Q L E R S S A N	250
CCTCCCCAAC AGCACTTGGG TTTTCCTGTT GAGAGGGGGG ACTGAGAGAC S P T A L G F S C . E G G L R D P P Q Q H L G F P V E R G D . E T L P N S T W V F L L R G G T E R Q	300
AGGACTACCT GGATTTCCTA GGCCAACGAA GAATCCCTAA GCCTAGCTGG R T S W I S . A N E E S L S L A G G L A G F P R P T K N P . A . L G D . L D F L G Q R R I P K P S W	350

4/33 Fig. 3B

10 20 30 40 50	-
1234567890 1234567890 1234567890 1234567890 1234567890	
GAAGGIGACT GCATCCACCT CTAAACATGG GGCTTGCAAC TTAGCTCACA	400
KVT ASTS KHG ACN LAHT	
R. L HPP LNMG LAT . LT	
EGDCIHL TW GLQL SSH	
EGDC IRE . I W C E & E S S II	
CCCCACCAAT CAGAGACCIC ACIAAAATGC TAATTAGGCA AAAATAGGAG	450
RPI REL TKM L I R Q K . E	
PDQSESSLKC.LGKNRR	
PTN QRAH . NA N . A KIGG	
r i n g n	
GTAAAGAAAT AGCCAATCAT CTATTGCCTG AGAGCACAGC GGGAGGGACA	500
V K K . P I I Y C L R A Q R E G Q	
V K K . PIIIICH K M Z K L C Z	
RN SQSSIA. EHS GRDK	
KEI ANH LLPE STA GGT	
	EE0
AGGATOGGGA TATAAACOCA GOCATTOGAG COGGCAACOG CAACCCCCTT	550
GSGYKPR HSS RQR QPP L	•
DRD INP GIRA GNG NPL	
RIGI . TQ AFE PATA TPF	
R I C Z · I R	
TOGGICCCCT CCCITIGIAT COCCCCCCC TTTTCACICT ATTTCACICT	600
GPLPLYGRSVFTLFHS	
WVPS LCM GAL FSLY FTL	
W V P S L C M G A L I S L I I I Z	-
GSP PFVW ALC FHS ISLY	•
	COF
ATTAAATCTT GCAACIGAAA AAAAAAAAAA AAAAA	635
I K S C N . K K K K	
LNLATEKKKKK	
. I L Q L K K K K K	

<sup>5/33</sup> Fig. 4A

10 20 30 40 50	
1234567890 1234567890 1234567890 1234567890 1234567890	<del> </del>
ATGCCCTCC CTTATCATAC TTTTCTCTTT ACIGITCICT TACCCCTTT	50
MALP YHT FLF TVLL PPF	
WPS LIIL FS L L FS Y P L S	•
GPP LSY FS LY CS L TPF	
	100
COCICICACT GCACCCCCTC CATGCTGCTG TACAACCAGT ACCTCCCCTT	100
ALT APPP C C C T T S S S P Y	
LSL HPL HAAV QPV APL	
R S H C T P S M L L Y N Q . L P L	
	<b>15</b> 0
ACCAAGAGIT TCTATGAAGA ACGCGGCTTC CTGGAAATAT TGATGCCCCA	1.00
QEF L . R TRLP GNI DAP TKSF YEE RGF LEIL MPH	
PRV SMKN AAS WKY . CPI	
PRVSMRNAASWRI.CII	
TCATATAGGA GITTATCIAA GOGAAACICC ACCITCACIG CCCACACCCA	200
SYRS LSK GNS TFTA HTH	
HIG VYLR ETP PSL PTPI	
I.EFI. GKLH LHC PHP	
TATECCCCC AACTECTATA ACTCTECCAC TCTTTECATE CATECAAATA	250
MPR NCYN SAT LCM HANT	•
CPA TAI TLPL FAC M Q I	
YAPQLL. LCH SLHA CKY	
CTCATTATTG GACAGGAAA ATGATTAATC CTAGTTGTCC TGGAGGACTT	300
HYWTGKMINPSCPGGL	•
LIIG Q G K . LI L V V L E D L	
SLL DREN D.S.LS WRTW	
	250
GAGCCACIG TCIGITGGAC TTACTTCACC CATACCAGIA TGICTGATGG	350
GATVCWT YFT HTSM SDG	
EPL SVGL TSP IPV CLMG	
SHC LLD LLHP YQY V.W	

### 6/33 **Fig. 4B**

			_			
	10			•	50	
	1234567890	1234567890	1234567890	1234567890	1234567890	
	GGGTGGAATT	CAAGGTCAGG	CAAGAGAAAA	ACAAGTAAAG	GAAGCAATCT	400
	G G I	Q G Q A	REK	Q V K	E A I S	
	V E F	K V R	QEKN	K * K	K Q S	
		R S G				
	CCCAACTGAC	CCGGGGACAT	AGCACCCCTA	GCCCCTACAA	AGGACTAGTT	450
	Q L T	$R \cdot G \cdot H$	S T P S	P Y K	G L V	
	P N * P	G D I	A P L	A P T K	D * F	
	P T D	P G T *	H P *	Ь Г Õ	R T S S	
	CTCTCAAAAC	TACATGAAAC	CCTCCGTACC	CATACTCGCC	TGGTGAGCCT	500
	L S K L	H E T	L R T	H T R L	VSL	. •
	S Q N	Y M K P	S V P	I L A	W * A Y	
	L K T	T * N	P P Y P	YSP	G E P	
	атттаатасс	ACCCTCACTC	GGCTCCATGA	GGTCTCAGCC	CAAAACCCTA	550
	FNT	T L T R	L H E	V S A	Q N P T	
	т. т Р	P <sup>"S</sup> L	G S M R	S Q P	K T L	• •
	I * Y H	P H S	A P *	G L S P	K P Y	•
	CTAACTGTTG	GATGTGCCTC	CCCCTGCACT	TCAGGCCATA	CATTTCAATC	600
	N C W	t M $ t C$ $ t L$	P L H F	R P Y	I S I	
-	L T V G	C A S	P C T	S G H T	F Q S	
	* L L	D V P P	P A L	Q A I	H F N P	
	CCTGTTCCTG	AACAATGGAA	CAACTTCAGC	ACAGAAATAA	ACACCACTTC	650
	DVDF	O $W$ $N$	NFS	T E I N	TTS	
	T. F. L	N N G T	T S A	Q K ^	TPLP	
	C S *	T M E	Q L Q H	R N K	H H F	
	CGTTTTAGTA	GGACCTCTTG	TTTCCAATCT	GGAAATAACC	CATACCTCAA	700
	37 T 37	GPI. V	SNL	$\mathbf{E}  \mathbf{I}  \mathbf{T}$	H T S N	
	F * *	D L L	F P I W	K * P	I P Q	
	R F S R	T S C	F Q S	G N N P	YLK	

7/33 Fig. 4C

10 20 30 40 50	
1234567890 1234567890 1234567890 1234567890 1234567890  ACCTCACCTG TGTAAAATTT ACCAATACTA TAGACACAAC CACCTCCCAA  L T C V K F S N T I D T T S S Q  T S P V . N L A I L . T Q P A P N  P H L C K I . Q Y Y R H N Q L P M	750
TGCATCAGGT GGGTAACACC TCCCACACGA ATAGTCTGCC TACCCTCAGG  C, I R W V T P P T R I V C L P S G  A S G G . H L P H E . S A Y P Q E  H Q V G N T S H T N S L P T L R	800
AATATITITT GICIGIGGIA CCICAGCCIA TCATIGITIG AATGGCICTT I F F V C G T S A Y H C L N G S S Y F L S V V P Q P I I V . M A L N I F C L W Y L S L S L F E W L F	850
CAGAATCIAT GIGCITCCIC TCATICITAG TGCCCCCIAT GACCATCIAC E S M C F L S F L V P P M T I Y Q N L C A S S H S . C P L . P S T R I Y V L P L I L S A P Y D H L H	900
ACTICAACAAG ATTITATACAA TCATGIOGTA OCTAAGOOOC ACAACAAAAG T E Q D L Y N H V V P K P H N K R L N K I Y T I M S Y L S P T T K E . T R F I Q S C R T . A P Q Q K	950
AGRACCCATT CITCCTTTIG TRATCAGAGC AGGAGIGCTA GGCAGACTAG V P I L P F V I R A G V L G R L G Y P F F L L L S E Q E C . A D . S T H S S F C Y Q S R S A R Q T R	1000
GRACIGGCAT TGGCAGTATC ACAACCTCTA CTCAGTTCTA CTACAAACTA T G I G S I T T S T Q F Y Y K L V L A L A V S Q P L L S S T T N Y Y W H W Q Y H N L Y S V L L Q T I	1050

8/33 Fig. 4D

10 20 30 40 50	
1234567890 1234567890 1234567890 1234567890 1234567890	1100
TCICAAGAAA TAAATGGIGA CATGGAACAG GICACIGACT CCCIGGICAC S Q E I N G D M E Q V T D S L V T	1100
SQEINGD MEQ VIDE LKK. MVT WNR SLT PWSP	
SRNKW. HGTGH. LPGH	
	,
CTIGCAAGAT CAACITAACT COCTAGCAGC AGIAGICCTT CAAAATOGAA	1150
L Q D Q L N S L A A V V L Q N R R	
CKINLTP.QQ.SFKIE	
LARST. LPSS SSPS KSK	
GAGCTTTACA CTTGCTAACC GCCAAAAGAG GGGGAACCTG TTTATTTTTTA	1200
A T. D. I. T. A K R G. G T C L F L	
F' T C P P K E G E P V Y F .	
SFR LANR QKR GNL FIFR	
GCACAAGAAC GCIGITATTA TGITAATCAA TCCACAATTG TCACTGAGAA	1250
CEERCYY UNO SRIV TEK	•
F K N A V I M L I N P E L S L R K	
RRT LLL C. SI QNC H. E	
AGITAAAGAA ATTOGAGATO GAATACAATG TAGAGCAGAG GAGCITCAAA	1300
V K E I R D R I Q C R A E E L Q N	
T K K F E I E Y N V E Q R S F K	
S. RN SRS NTM . SRG ASK	
	1350
ACACCGAACG CIGGGGCCIC CICAGCCAAT GGATGCCCIG GGIICICCCC	1000
TERWGLLSQWMPWVLP TPNAGASSANGCPGFSP	
TPNAGAS SAN GCLGSPL	
TICITAGGAC CICIAGCAGC TCTAATATIG TTACTCCICT TIGGACCCIG	1400
TO DIAAI, TL LLF GPC	
LRTSSSSNIVTPLWTL	

9/33 Fig. 4E

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
			TTCCAGAATT		1450
TFN		FVS		E A V K	
SLT		SLSL		K L .	
Y L . P		VCL	FQN.	S C K	:
1 11	:				
AGCTACAGAT	CCTICTITACAA	ATGGAACCCC	A	•	1481
L O M	V L O	MEP		:	•
SYRW	S Y K	WNP	* -	: :	
	G I T N	G T P			
ATD	G T 14	0 + -	the second secon		

## 10/33 Fig. 5A

10 20 30 40 50	
1234567890 1234567890 1234567890 1234567890 1234567890	
TCAAAATCGA AGAGCITTAG ACTIGCTAAC CGCCAAAAGA GGGGGAACCT S K S K S F R L A N R Q K R G N L	- 50
Q N R R A L D L L T A K R G G T C	
KIE EL. TC. PPKE GEP	
GITTATTITT ACCCCAACAA TCCTGITAGI ATGTTAATCA ATCTCCAATC	100
FTF RGRM LLV C . S I W N H	
LFL GEE CC. Y V N Q S G I	
V Y F . G K N A V S M L I N L E S	
ATTACIGAGA AAGITAAAGA AATTTGAGAT CGAATATAAT GTAGAGCAGA	150
Y . E S . R N L R S N I M . S R	
ITEK VKE I. D RI. C RAE	
LLR KLKK FEI EYN VEQR	
GGACCTICAA AACACTGCAC CCTGGGGCCT CCTCAGCCAA TGGATGCCCT	200
GPSKHCTLGPPQPM DAL	
DLQ NTAP WGL LSQ W M P W	•
TFK TLH PGAS SAN GCP	
GGACTCTCCC CITCTTAGGA CCTCTAGCAG CTATAATATT TTTACTCCTC	250
DSP LLRT SSS YNI FTP L	
TLP FLG PLAA IIF LLL	
GLSPS.DL.QL.YFYSS	
TITIGGACCCT GIATCTICAA CITCCTIGIT AAGITIGICT CITCCAGAAT	300
WTL YLQ LPC. VCL FQN	
FGPCIFN FLV K F V S S R I	
L D P V S S T S L L S L S E L E L	
TGAAGCIGIA AAGCIACAAA TAGITCITCA AATGGAACCC CAGATGCAGT	350
. SCK ATN SSS NGTP DAV	
EAV KLOI VLQ MEP Q M Q S	
KL. SYK. FFK WNP RCS	

# 11/33 Fig. 5B

10 20 30 40 50	
1234567890 1234567890 1234567890 1234567890 1234567890  CCATGACTAA AATCTACCGT GGACCCCTGG ACCGCCTGC TAGACTATGC  H D . N L P W T P G P A C . T M L  M T K I Y R G P L D R P A R L C  P . L K S T V D P W T G L L D Y A	400
TCICATGITA ATGACATICA AGICACCCCT CCCCAGGAAA TCICAACIGC . C H . S H P S R G N L N C S D V N D I E V T P P E E I S T A L M L M T L K S P L P R K S Q L H	450
ACAACCCCIA CIACACICCA ATICAGIAGG AAGCAGITAG AGCAGITGIC T T P T T L Q F S R K Q L E Q L S Q P L L H S N S V G S S . S S C Q N P Y Y T P I Q . E A V R A V V	500
AGCCAACCIC CCCAACAGIA CITGGGITIT CCTGTTGAGA GGGIGGACIG A N L P N S T W V F L L R G W T E P T S P T V L G F S C . E G G L S Q P P Q Q Y L G F P V E R V D .	550
AGAGACAGGA CTAGCTGGAT TTCCTAGGCT GACTAAGAAT CCCNAAGCCT R Q D . L D F L G . L R I P K P R D R T S W I S . A D . E S X S L E T G L A G F P R L T K N P X A X	
ANCIGGRAG GIGACCGCAT CCATCITIAA ACATGGGGCI TGCAACTIAG X W E G D R I H L . T W G L Q L S X G K V T A S I F K H G A C N L A L G R . P H P S L N M G L A T .	650
CTCACACCCG ACCAATCAGA GAGCTCACTA AAATGCTAAT CAGGCAAAAA S H P T N Q R A H . N A N Q A K T H T R P I R E L T K M L I R Q K L T P D Q S E S S L K C . S G K N	700

# 12/33 Fig. 5C

10 20 30 40 50	
1234567890 1234567890 1234567890 1234567890	750
CAGGAGGIAA AGCAATAGCC AATCATCIAT TGCCTGAGAG CACAGGGGA	750
GGK AIA NHLL PESTAG	
QEVKQ.PIIYCLRAQRE	
RR. SNSQSSIA.E HSGK	,
AGGACAAGGA TIGGGATATA AACICAGGCA TICAAGCCAG CAACAGCAAC	800
RTRIGI. TQAFKPATAT	
G Q G L G Y K L R H S S Q Q Q P	
DKD WDI NSGI QAS NSN	
CCCCTTIGGG TCCCCICCCA TIGIATGGGA GCICIGITIT CACICIATTI	850
PFG SPPI V W E L C F H S I S	
PLWVPSHCMGALFSLYF	
CACICIATIA AATCAIGCAA CIGCACICIT CIGGICCGIG TITTITAIGG	900
LY. IMQLHSS GPC FLW	
HSIKSCNCTLLVRVFYG	
TLL NHAT ALF WSV FFMA	
	950
CICAAGCIGA GCITTIGITC GCCATCCACC ACIGCIGITT GCCACCGICA	950
LKLS FCS PST TAVC HRH	
SS. AFVR HPP LLF ATVT	
QAE LLF AIHH CCL PPS	
CAGACCOCCT GCTGACTTCC ATCCCTTTGG ATCCAGCAGA GTGTCCACTG	1000
R P A A D F H P F G S S R V S T V	
DPL LTS IPLD PAE CPL	
QTRC . LPSLW IQQS VHC	
QTRC . LFSLW T 2 2 2 7 13 7	
TOCTOCTGAT CCAGOGAGGT ACCCATTGCC ACTCCCGATC AGGCTAAAGG	1050
LLI ORGTHCH SRS G.R	
CS SEVPIA TPDQ AKG	
APD PARY PLP L PI R L K A	

# 13/33 Fig. 5D

10 20 30 40 50 1234567890 1234567890 1234567890 1234567890	
CITCCCATTG TICCTCCATG CCTAAGICCC TCCGITTGIC CTAATACAAC  L A I V P A W L S A W V C P N R T  L P L F L H G . V P G F V L I E L  C H C S C M A K C L G L S N	1100
TGAACACTGG TCACTGGGTT CCATGGTTCT CTTCCATGAC CCACGGCTTC  E H W S L G S M V L F H D P R L L  N T G H W V P W F S S M T H G F  . T L V T G F H G S L P . P T A S	1150
TAATAGAGCT ATAACACTCA CCCCATGGCC CAAGATTCCA TTCCTTGGTA I E L . H S P H G P R F H S L V S Y N T H R M A Q D S I P W Y N R A I T L T A W P K I P F L G I	1200
TCIGICAGGC CAAGAACCCC AGGICAGAGA ANGIGAGGCT TGCCACCATT S V R P R T P G Q R X . G L P P F L . G Q E P Q V R E X E A C H H L C E A K N P R S E X V R L A T I	1250
TGGGAAGIGG CCCACIGCCA TITIGGIAGC GGCCCACCAC CATCTIGGGA G K W P T A I L V A A H H H L G S G S G P L P F W . R P T T I L G W E V A H C H F G S G P P P S W E	1300
CCIGIOGGAG CAAGGAICCC CCAGIAACA CGSKDPPVT AVGARIPQ. LWEQGSPSN	1329

# 14/33 Fig. 6A

•	
10 20 30 40 50 1234567890 1234567890 1234567890 1234567890	
CCTAGAACGT ATICIOGAGA ATTOGGACCA ATGIGACACT CAGACOCTAA PRTYSGELGPM. HSDAK LERILEN WDQCDTQTLR . NVFWRIGTNVTLRR.	50
GAAAGAAACG ATTTATATTC TTCTGCAGTA CCCCCTGGCC ACAATATCCT KETIYIL LQYRLA TISS KKRFIFFCSTAWPQYP ERND LYS SAV PPGHNIL	100
CTTCAAGGGA GAGAAACCIG GCTTCCTGAG GGAAGTATAA ATTATAACAT S R E R N L A S . G K Y K L . H L Q G R E T W L P E G S I N Y N I F K G E K P G F L R E V . I I T S	150
CATCTTACAG CTAGACCTCT TCTGTAGAAA GGAGGGCAAA TGGAGTGAAG H L T A R P L L . K G G Q M E . S I L Q L D L F C R K E G K W S E V S Y S . T S S V E R R A N G V K	200
TOCCATATOR OCAAACTTIC TITTCATTAA GAGACAACIC ACAATTATOR A I C A N F L F I K R Q L T I M . P Y V Q T F F S L R D N S Q L C C H M C K L S F H . E T T H N Y V	250
AAAAAGIGIG GITTATGOOC TACAGGAAGC OCICAGAGIC CACCICOCTA  K V W F M P Y R K P S E S T S L  K K C G L C P T G S P Q S P P P Y  K S V V Y A L Q E A L R V H L P T	300
PQRPLPDSFLNGPPFPSVPSPTPSSTNKDPPLPASPPRLLPQLIRTPL	350
TAACCCAAAC GETOCAAAAG GAGATAGACA AAGGGGTAAA CAATGAACCA N P N G P K G D R Q R G K Q . T K T Q T V Q K E I D K G V N N E P . P K R S K R R . T K G . T M N Q	400
AAGAGIGOCA ATTATTOCOCG ATTATGCCCC CTCCAAGCAG TGAGAGGAGG E C Q Y S P I M P P P S S E R R K S A N I P R L C P L Q A V R G G R V P I F P D Y A P S K Q . E E E	450
ACAATTOGGC CCAGGCAGAG TGCCTGTACC TTTTTCTCTC TCAGACTTAA R I R P S Q S A C T F F S L R L K E F G P A R V P V P F S L S D L K N S A Q P E C L Y L F L S Q T .	500

## 15/33 Fig. 6B

10 20 30 40 50	
1234567890 1234567890 1234567890 1234567890	FFO
AGCAAATTAA AATAGACCTA GGTAAATTCT CAGATAACCC TGACGGCTAT	550
AN. NRPR.ILR.P.RLY QIKIDLGKFS DNP DGY	* •
SKLK T. VNSQITL TAI	
ATTICATOTTT TACAAGGGTT AGGACAATCC TITGATCTGA CATGGAGAGA	600
. C.F. T.R.V.R.T.I.L. S.D.M.E.R	
I D V L Q G L G Q S F D L T W R D	•
LMFYKG. DNP LI. HGEI	
TATAATGITA CTACTAAATC AGACACTAAC CCCAAATGAG AGAAGIGCCG	. 650
Y N V T T K S D T N P K . E K C R	. 050
I M L L L N Q T L T P N E R S A A	
CYY.IRH.PQMREVP	
CIGIAACIGC AGCCCGAGAG TITIGGCGATC TITIGGTATCT CAGTCAGGCC	700
C N C S P R V W R S L V S Q S G Q	
V T A A R E F G D L W Y L S Q A	
L.LQPESLAIFGIS,VRP	
AACAATAGGA TGACAACAGA GGAAAGAACA ACTOCCACAG GOCAGCAGGC	750
Q D D N R G K N N S H R P A G	
NNRM TTE ERT TPTG Q Q A	
TIG . QQR KEQ LPQ ASRQ	
AGITOCCAGT GIAGACOCTC ATTGGGACAC AGAATCAGAA CATGGAGATT	800
SSQC RPS LGH RIRT W R L	
V P S V D P H W D T E S E H G D W	
FPV . TL IGTQ NQN M E I	
GGIGCCACAA ACATTIGCTA ACITGCGIGC TAGAAGGACT GAGGAAAACT	850
VPQTFANLRARRTEEN.	
CHKHLL TCVL EGL RKT	
GATNIC. LAC. KD. GKL	
AGGAAGAAGC CTATGAATTA CTCAATGATG TOCACTATAA CACAGGGAAA	900
EEA YEL LNDV HYN TGK	
RKKPMNY SMM STIT QGK	
GRS L . I T Q . C P L . H R E R	
GGAAGAAAAT CITACIGCIT TICIGGACAG ACITAAGGGAG GCATIGAGGA	950
GRKSYCFSGQTKGGIEE	
EEN LTAF LDR LRE ALRK	
KKILL F W T D . G R H . G	
ASCATACCIC CCIGICACCI GACICIATIG AAGGCCAACT AATCTIAAAG	1000
AYL PVT. LY. RPT NLKG	
HTS LSP DSIE GQL ILK SIPP CHL TLL KAN. S. R	
SIPPCHL TLL KAN. S. R	

# 16/33 Fig. 6C

10 20 30 40 50 1234567890 1234567890 1234567890 1234567890	
GATAAGITTA TCACTCAGIC AGCTGCAGAC ATTAGAAAAA ACTTCAAAAG  V Y H S V S C R H . K K L Q K D K F I T Q S A A D I R K N F K S I S L S L S Q L Q T L E K T S K V	
TCTGCCTTAG GCCCGGAGCA GAACTTAGAA ACCCTATTTA ACTTGGCATC S A L G P E Q N L E T L F N L A S L P . A R S R T . K P Y L T W H P C L R P G A E L R N P I . L G I	1100
CICAGITTIT TATAATAGAG ATCAGGAGGA GCAGGGGAAA CGGGACAAAC S V F Y N R D Q E E Q A K R D K R Q F F I I E I R R S R R N G T N L S F L R S G G A G E T G Q T	1150
COCATAAAAA AAAAAACCCCG CGTCCACTAC TTTAGTCATG CCCCTCACCCC  D K K K R G G P L L . S W P S G  G I K K K G G V H Y F S H G P Q A  G . K K K G G S T T L V M A L R Q	1200
AACCAGACTT TOGACCCTCT CCAAAACCGA AAACCTOGGC AAATCAAATG KQTL: EALQKG KAGQ IKC SRL WRLC KRE KLG KSNA ADF GGS AKGK SWA NQM	1250
CCTAATAGG CTGCCTTCCA GTGCGGTCTA CAAGGACACT TTAAAAAAGA LIG LASSAVY KDT LKKI G W L P V R S T R T L . K R P N R A G F Q C G L Q G H F K K D	1300
TTATOCAAGT ACAAATAAGC COCCCCTTG TCCATGCCCC TTAGGTCAAG I Q V E I S R P L V H A P Y V K L S K . K . A A P L S M P L T S R Y P S R N K P P P C P C P L R Q G	1350
CCAATCACTG CAACGOCCAC TCCCCCACGC CATCAACATA CTCTCACTCA G I T G R P T A P G D E D T L S Q E S L E G P L P Q G M K I L . V R N H W K A H C P R G . R Y S E S	1400
CAACCOATTA ACCACATCAT COACCACCAC CACTCAGGGT GOOOGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	1450
ACCOCACC CATCOCATCA COCTCACACA GOOCOGGTA TGTTTGACCA R Q P M P S P S Q S P G Y V . P S A S P C H H P H R A P G M F D H A P A H A I T L T E P R V C L T I	1500

### 17/33 Fig. 6D

	·					
10	20	. 30	40	50		
1234567890	1234567890	1234567890	1234567890	1234567890	<u> </u>	
TTGAGAGCCA			•		1511	
L R A						
. E P						
E S Q						

## 18/33 Fig. 7A

	• ·					
10	20	30	40			
1234567890	1234567890	<u> 1234567890</u>	1234567890	1234567890		
ATECETIVA (	CCATCATCA	TCATCATCAC	AGCAGCGGCC	JOSIGOGG	50	
M G S S	ннн	ннн	SSGL	. V P R		
			2.4			
CCCCACCCAT Z	ATGGCTAGCA	TGACTGGTGG	ACAGCAAATG	<b>GGTCGGATCC</b>	100_	
G S H I	A S M	тGG	Q Q M	GRIL		
G S II I	1 11 0 11	-	~ -			
TAGAACGIAT I	חייים ארי אייים	ייים מריים מביבינית	CTCACACTCA	GACGCTAAGA	150	
.IACAACGIAI	CIGGREENI	W D O C	D T Q	тLR		
ERI	г в и	w D Q C	D 1 2	• -		
			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	بالمالين المالية لا	200	
AAGAAACGAT T	TATATICTI.	CIGAGIACC	GUIGGUAL	MINICULLI	200	
KKRF	I F F	C S T	AWPQ	Y P L		
					,	
TCAAGGGAGA G	AAACCTGGC	TTCCTGAGGG	AAGTATAAAT	TATAACATCA	250	
Q G R E	LWT	PEG	SIN	A N I I		•
	•			•		
TCTTACAGCT A	GACCICIIC	TGTAGAAAGG	ACCCCAAATG	CACICAACIC	300	
ICITAASCI 1.	D I F	CRKE	G K W	SEV		
гуг		<b>C</b> 11 13 –				
CCATATGIGC A	;	מבור מיווים מבו	ന്മാമ മന്ന <b>്</b> മറ	AATTATGTAA	350	
CCATAIGIGU A	AACTITCIT	TICALIANA	D M C O	T. C K		-
P Y V Q	T F F	5 ц к	D N B Q			
				COMPOSITION CO.	400	
AAAGIGIGGT T	TATGCCCTA	CAGGAAGCCC	ACAGAGICCA	CICCIACC	400	
K C G L	, C P T	G S P	QSP	PPYP		•
					450	
CCACCETCCC C	TCCCCGACT	CCTTCCTCAA	CTAATAAGGA	CCCCTTTA	450	
SVP	SPT	PSST	N K D	PPL		
	•			•		
ACCCAAACGG T	CCAAAAGGA	GATAGACAAA	GGGGTAAACA	ATCAACCAAA	500	
T Q T V	OKE	TDK	GVNN	EPK		
1 Q 1 V	Q 1. L				•	
CACTCCCAAT A		أبلت كالمحاددة	CAACCACTIC	AGAGGAGGAG	550	
S A N I	TACOUAL	IAIGGGG	VA	RGGE	•	
SANI	PRL	CPL	Q A V			
				ACACTITIVA AC	600	
AATTOGGCCC A	CCCAGAGIG	CCIGIACCIT	Tricicicic	APACITAMAS	000	
F G P	A R V	PVPF	s L S	אםע		
					CEO	
CAAATTAAAA T	AGACCIAGG	TAAATTCICA	GATAACCCTG	ACCCTATATAT	650	
Q I K I	D L G	K F S	D N P D	GYI		
				·		
TGATGITITIA C	AAGGGTTAG	GACAATOCTT	TGATCIGACA	TGGAGAGATA	700	
D V L Q	G T. G	OSF	D L T	W R D I		
ט ע ע		×	•			
TAATGITACT A	רייזא א אייזייאר	ארארודאארורי	CARATGAGAG	AAGTGCCCCT	<b>75</b> 0	
M L L	T N O	m r. m D	NER	SAA		
M L L	H IN O			<del>-</del>		

# <sup>19/33</sup> Fig. 7B

10 20 30 40 5 1234567890 1234567890 1234567890 1234567890	50 90
GIAACICCAG COCCAGAGIT TOCCGATCIT TOCTATCICA GICACCCC	AA 800
CAATAGGATG ACAACAGAGG AAAGAACAAC TCCCACAGGC CAGCAGGC N R M T T E E R T T P T G Q Q A	AG 850 V
TICCCAGIGT AGACCCICAT TGGGACACAG AATCAGAACA TGGAGAITC PSVDPHWDTESEHGDW	9G 900
TGCCACAAAC ATTTGCTAAC TTGCGTGCTA GAAGGACTGA GGAAAACTA	
GAAGAACCT ATGAATTACT CAATGATGIC CACTATAACA CACCGAAAC K K P M N Y S M M S T I T Q G K	
AAGAAAATCT TACTGCTTTT CTGGACAGAC TAAGGGAGGC ATTGAGGAA E N L T A F L D R L R E A L R K	AG 1050
CATACCICCO TGICACCIGA CICIATIGAA GOCCAACTAA TCITAAAGC	
TAAGITTATC ACTCAGTCAG CTGCAGACAT TAGAAAAAC TTCAAAAGT	
TOCCTAACCT TOCCCCCCA CTCCACCACCA CCACTCACA	AT 1200
COCCCTCCTA ACAAAGCCCC AAAGCAAGCT CAGTTGCCIN GTGCCNA P A A N K A R K E A E L A X G	1247

## <sup>20/33</sup> Fig. 8A

<b>.</b>		
10 20 30 40 50		
1234567890 1234567890 1234567890 1234567890 1234567890		
ATGCCTACCA TGACTGGTGG ACAGCAAATG GGTCGGATCC TAGAACGTAT	50	
MASMTGGQQMGRILERI	. 50	
M A S M I G G Q Q M G K I L E K I		
TCTGGAGAAT TGGGACCAAT GTGACACTCA GACGCTAAGA AAGAAACGAT	100	
LEN WDQC DTQ TLR KKRF	•	
	150	
TTATATTCIT CIGCAGTACC GCCIGGCCAC AATATCCTCT TCAAGGGAGA	150	
IFF CST AWPQ YPL QGR		
GAAACCIGGC TICCIGAGGG AAGIATAAAT TATAACAICA TCITACAGCT	200	
	, 200	
ETWL PEG SIN YNII LQL	,	
AGACCICTIC TGTAGAAAGG AGGCCAAATG GAGTGAAGTG CCATATGTGC	250	
D L F C R K E G K W S E V P Y V Q		
DIF CKKE GKW SEV FIVQ		-
AAACTITCIT TICATTAAGA GACAACTCAC AATTATGTAA AAAGIGIGGT	300	
TFF SLR DNSQ LCK KCG		
	250	
TTATGCCCTA CAGGAAGCCC TCAGAGTCCA CCTCCCTACC CCAGCGTCCC	350	
LCPTGSPQSPPPYPSVP		
CICCCCGACT CCTICCTCAA CTAATAAGGA CCCCCCTTTA ACCCAAACGG	400	
	100	•
SPT PSST NKD PPL TQTV	•	
TCCAAAAGGA GATAGACAAA GGGGTAAACA ATGAACCAAA GAGTGCCAAT	450	•
QKE IDK GVNN EPK SAN		•
2		
1 management management con 1 con con 1 con 201 con 2 1 mmoorees	F00	
ATTCCCCGAT TATGCCCCCT CCAAGCAGIG AGAGGAGGAG AATTCGGCCC	500	
IPRL CPL QAV RGGE FGP		
· · · · · · · · · · · · · · · · · · ·	•	
AGCCAGAGIG CCIGIACCIT TITCICICIC AGACTIAAAG CAAATTAAAA	550	
ARV PVPF SLS DLK QIKI	330	
ARVPVPFSLSDLKQIKI		
TAGACCTAGG TAAATTCTCA GATAACCCTG ACGGCTATAT TGATGTTTTA	600	
D L G K F S D N P D G Y I D V L		
CD 2 COOPERS CD CD 2 PROCESSES PROCESSES AS	CEO.	
CAAGGGITAG GACAATOCIT TGATCIGACA TGGAGAGATA TAATGITACT	650	
QGLG QSF DLT WRDI MLL		
ACTABATCAG ACACTAACOC CAAATGAGAG AAGTGCCGCT GTAACTGCAG	700	
	. 50	
LNQTLTPNERSAAVTAA		
CCCCAGAGIT TGGCCATCIT TGGIATCICA GICAGGCCAA CAATAGGAIG	750	
REF G D L W Y L S Q A N N R M		

### 21/33 **Fig. 8B**

				<del></del>		
		30				
<u>1234567890</u>	<u>1234567890</u>	1234567890	1234567890	1234567890	<del></del>	<del></del>
		TCCCACAGGC P T G		TICCCACIGT P S V	800	
				TGCCACAAAC C H K H		
		GAAGGACIGA E G L R		CAAGAAGCCT K K P	900	
		CACTATAACA T I T		AAGAAAATCT E N L	950	·
		TAAGGGAGGC. R E A		CATACCTCCC H T S L	1000	
		GCCAACTAA '		TAAGITIATC K F I	1050	
		TAGAAAAAAC ' R K N		TGCCTAAGCT P K L	1100	
		ACCACCACCA ( H H H		CCCCCTCCTA PAAN	1150	
		GAGITIGGCTG ( E L A G			1186	٠

# <sup>22/33</sup> Fig. 9A

			· - · · · · · · · · · · · · · · · · · ·	
		40		
1234567890 1234567890				
TGICCOCTGT GCTCCTGATC C P L C S . S V R C A P D P S A V L L I	S T G A Q A	A H C L P I A	S Q L S P N W	50
GOGCTAAAGG CTTGCCATTG G G . R L A I V A K G L P L G L K A C H C	PAQ FLHS	L S A . V P	W V H P	100
CTAATCGACC TGAACACTAG ' N R A E H . S L I E L N T S . S S . T L V	S L G S H W V	T V L P R F S	F H D S M T	150
CCATGGCTTC TAATAGAGCT AT P W L L I E L H G F S Y M A S N R A	. H S N T H	L H G P C M V	R F H Q D S I	200
TICCTICGAA TOOGICAGAC O S L E S V R P P W N P . D ( F L G I R E T	RTP QEPQ	G Q R V R E	T Q G L H K A	250
TCCCACCATG TTCGAACCAG C PPCWKQI CHHVGSS ATMLEAA	P T T I P P P	L E A F W K Q	A R H P A T	300
TATCTTGGGA GCTCTGGGAG ( Y L G S S G S I L G A L G A S W E L W E (	K D P R T P	R . Q F G N N	G D H L V T T	
CGAAGGGACC TGAATCCGCA A E G T . I R N K G P E S A T R R D L N P Q	H E G F M K G	ISK SPK	A I G N Q L E	400

# 23/33 Fig. 9B

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
V P P	K A K	M P L R	CATGIATICI C I L D V F W	E N W	450
C S S	Q G K N	A P K	M Y S	G E L G	E00
D Q F D	P Q T T L R Q	V R K . E K	N D L	F F C Y S S A	500
S T A V P P	L A T I W P R	S S S Y P L Q	AAGGGGAGA R G R G G E K G E K	N L A S T W P	550
. G K P E G S	Y K L I N Y	HHL NTI	TTACAGCTAG TAR LQLD YS.	P V L L F C	600
. K R R R K G	Q M E G K W S	. S A E V P	ATATTTACAA I F T N Y L Q I Y K	F L F T F F S	650
L K D	Q L A I N S Q	M L T L C . Q	AGIGICATIT V . F C D L S V I C	V F L H C S Y	700
ACGGAAGCCC G S P T E A L R K P	Q I L R F Y	L P T P S P P	G I S P A S P	P E S L N P	750
CICCCCAACT T L P N L S P T Y P Q L	Y				764

### 24/33

### Fig. 10A

10 20 30 40 50	
1234567890 1234567890 1234567890 1234567890	
	50
TGICCGCIGI GCICCIGATC CAGCACAGGC GCCCATTGCC TCICCCAATT	,
CPLCS.SSTGAHCLSQL	
VRCAPDPAQAPIASPNW	•
SAV LLI QHRR PLP LPI	
GGGCTAAAGG CITGCCATTG TICCTGCACA GCTAAGTGCC TGGGTTCATC	100
G. R L A I V P A Q L S A W V H P	_0
AKG LPL FLHS . VP GFI	
GLKA CHC SCT AKCL GSS	
G L K A C H C B C I H K C L C D D	
CTAATCGAGC TGAACACTAG TCACTGGGTT CCACGGTTCT CTTCCATGAC	150
NRAEH. SLGSTVLFHD	
LIEL NTS HWV PRFS SMT	
. SS . TLV TGF HGS LP. P	,
CCATGGCITC TAATAGAGCT ATAACACTCA CTGCATGGTC CAAGATTCCA	200
PWLL IEL . HS LHGP RFH	
HGFSYNTHCMVQDSI	
MASNRAITLTAWSKIP	
TICCIIGGAA TCCGIGAGAC CAAGAACCCC AGGICAGAGA ACACAAGGCT	250
SLE SVRPRTP G Q R T Q G L	
PWN P. D Q E P Q V R E H K A	
FLGIRETKNP RSEN TRL	
TGCCACCATG TTGGAAGCAG CCCACCACCA TTTTGGAAGC GGCCCGCCAC	300
PPC WKQ PTTI LEA ARH	
CHHV GSS PPP FWKR PAT	
ATM LEAA HHH FGS GPPL	•
	350
TATCITOGGA GCICIOGGAG CAAGGACCCC CAGGIAACAA TITGGIGACC	350
YLGS SGS K D P Q V T I W . P	
ILG ALGA RTP R. Q FG D H	
SWE LWE QGPPGNN LVT	
	400
ACGAAGOGAC CTGAATCCGC AACCATGAAG GGATCTCCAA AGCAATTGGA	400
RRD LNPQP.RDLQSNWK	
EGT . IR NHEGISK AIG	
TKGPESATMKGSPKQLE	

### 25/33

### Fig. 10B

•	9	<u> </u>	
		40 50 1234567890 1234567890	
AATGITICCIC CCAAGGCAAA C S S Q G K N V P P K A K	AATGCCCCIA N A P K M P L	AGATGIATIC TGGAGAATTG M Y S G E L	
GPI. PSD	S K K V R K	AAAAATGACT TATATICTIC K N D L Y S S K M T Y I L L K . L I F F	500
	Y P L D I L F		550
CICCIGAGOG AAGIATAAAT PEGSIN LLREV.I S.GKYKL	Y N T I I T P	L Q L D L F	600
TGTAGAAAAG GAGGCAAATG C R K G G K W V E K E A N G . K R R Q M	S E V V K C	PYLQ TFF HIY KLSF	650
S L K D N S Q H . K T T R	L C K	ACAGIGIGAT TIGIGICCIA Q C D L C P T S V I C V L T V . F V S Y	
CAGGAAGCCC TCAGATCIAC G S P Q I Y Q E A L R S T R K P S D L P	L P T P S L P	ASP.LL	750
CCCCAACIAA TAAGGACCCA PQLIRTH PNGPT PTNKDP	F S P S A Q	NSPKGH TVQKDI	800

# <sup>26/33</sup> Fig. 11A

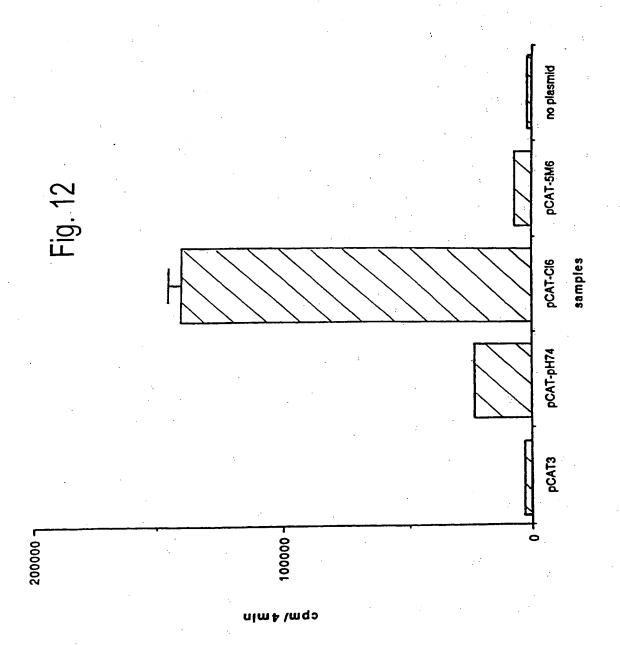
10	20	30	40	50	
1234567890 1234	<u> 1567890 123456</u>	57890 123 <u>4</u>	<u>567890 123</u>	34567890	
GCATIGATA GCAC G I D S T A L I A I H H	HQ MA	K S L P N H	, F T ( Y L L	F G D Q A	50
CCTTTTCAAA ACTA L F K T I F S K L P F Q N Y	KQIO SSR.	PV GP.	K H A S M P	K E I K K	LOO
TAATCCCCIG CCIT  I P C L  . S P A L  N P L P Y	I A M F S P C S	L Q E F R R	NK E	QA IRP	L50
ATTACCCAGG GGAA I T Q G K L P R G R Y P G E	TGN.	I L P R F Y	TW I PH G	PNV QMS	200
CAGGGATTIC AGCA R D F S I G I S A Q G F Q H	Y.SG STSL	Q I G R Y	LS L FH W	V G W L G	250
GCAGICTICT CCTT S L L L G V F S L E S S P C	V G Q K . D R K	R P K D P R	R	RH (GT	300
TAATCAAATA ATTO N N S N E I I P M K . F	Q I W T R F G I	S P R , P P	G L Q	G D N	350

### <sup>27/33</sup> Fig. 11B

	<del></del>
10 20 30	
1234567890 1234567890 1234567890 123456	7890 1234567890 PATC CCAGGIGITA 400
ATGGCCCCCC TTTCAAGGCT GCAGTAACCC AGGGAGWPRFQGCSNPGS	
GPAFKAAVTQ GV	
MAPLSRLQ.PRE	YPRC.
	CAAT CCTCCAGAAA 450
GCCATACAAT ATCACTTACA CTGTGCCTGG AGGCCA	
GIQY H L H C A W R P (	
AYNITYTVPGGH	N P P E K
	AAAG CTAACCCAAG 500
AGICAAGAAA ATGAATGAAA CACTCAAAGA TCTAAA S Q E N E . N T Q R S K	
V K K M N E T L K D L K	KLTQE
SRK . MK HSKI . K	S . P K
	CCTT ACTAAGAATC 550
AAACCCACAT TGCATGACCT GITCIGITGC CIATAA N P H C M T C S V A Y N	T. TR N P
THIA.PVLLPIT	LLRI
KPTL HDL FCC L.	
	GAG ATCCTATATG 600
CATAACTATC CCCCAAAAAG CAGGACTTAG CCCATA	
LS PKK Q D L A H T H N Y P P K S R T P I	R D A I W
ITI PQKA GLS PY	E M L Y G
GATGGCCITT CCTAACCAAT GACCITGIGC TIGACT D G L S . P M T L C L T	4.61.11.1000
MAFPNQ. PCA. L	
WPFLTNDLVLD.	E M A N
	CAAG TICTTAAAAC 700
TTAGITICAG ACATCACCIC CTTAGCCAAA TATCAA. . L Q T S P P . P N I N	—:
SCR HHL LSQI ST	S S . N
LVADITSLAKYQ	Q V L K T

### 28/33 Fig. 11C

10 20	30	40 50	
1234567890 1234567890	1234567890	1234567890 1234567890	
ATCACAGGGA ACCIGICCCC H R E P V P I T G N L S P	CACACGACGG E R R E R G G	AAAGGAACTA TTCCACCCIG RNYSTL KGTIPPW KELFHPG	750
GIGACATG V T . H D M	d de la companya de		758



### 30/33

500 1400 200 COGCATATAA ACCONGOAT TOCAGCOGC MCCGCAACC CCCTTTGOOT CCCCTCCTT TOTATGOGCG CTCTGTTTTC ACTCTATTTC ACTCTATTAA acidificance accendence centendent magniture entitishang aspacation and achains CCANTCAGAG ACCTCACTAA ANTGCTAATT AGGCAAAAAT AGGAGGTAAA GAAATAGCCA ATCATCTATT GCCTGAGAGC ACAGCGGGAG GGACAAGGAT CATCACTAAG PAGCTGGATT TOCTAGGOCA ACGAAGAATC CCTAAGCCTA GCTGGGAAGG TGACTGCATC CACCTCTAAA CATGGGGTT GCAACTTAGC CITOCIANCE GCENNAGAG GGGGAACCTO CINCTIONEE SI C P GTCACTGACT ပ ပ TAAATGGTGA CATGGAACAG CONCOCCITO CATECTICATO **8** ACCTACAGAT TCACATTICAA CANATCGAA GAGCTITAGA CACANTCTAT TCTCAAGAM Z 0 LSKL DIE TCCATCAGGT CCTCTCACT H 0 '5 TCACAATTO TCACTGACAA CTCAGTTCTA CTACANACTA ACCCATOCT (S ACTACTCCTT COTCTCACC CCCTACCACC **COCTOCATOR** CCTCACCCTA CMCTTMCT O GGAGAGAC GCTGTTATTA ACTGACAG ATTTATACA V C G T ACCEPTOACTE z z . U E ATTTANTACC I TTOCANGAT ATCCACCOTG

Fig. 13

100 200 300 400 500	33 7700 337 8800 70 70 103	8 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	270 1500 303 1600 337 1700 370	1900 437 2000 470
GTCCGTGTTT CAGCAGAGG GGTTCATCCT AGATTCCATT CCCGCCACTA AMEGCAAACCAAAACAAACAAAACAAAACAAAAACAAAAACAAAA	TYCTCTGCA  TYCTCTGCA  F C S  TCTTCTGTAG  F C R  CCCTACAGGA  P T G  AAGGAGATAG  K E I D	GAGTGCCTGT V V P V GTTAGGACAA L G Q GAGTTTGGCG E F G D CTCATTGGGA	TTACTCAATG Y S M CCTGACTCTA P D S I AACAAAACTT Q N L GGCCACCGCT	TGGGTCTAC  C G L Q  GCCCAGGG
G GTCC C CAGC G GGTT A AGAT NG CCCC	F F F C TCTTC  TC TC TCTTC  TC TCTTC  TC TCTTT  TC TC TCTTC  TC TC TCTT  TC TC TC	CA GAG R V SG GTT S L GA GAG GA GAG GA CAC CC CTC	AA TTA AA TTA AA TTA AA TTA AA CCC AAC GG AAC GG AAC GG AAC GGC AAC GGC AAC GGC AAC GGC AAC GGC AAC GGC AAC AA	ဦး ရုံ ဂို ကို ဂို ကို
CACTCTTCTG CACTTTGGATC TAAGTGCCTG GCATGGTCCA TTGGAAGCAGC	ACGATTTATA TTCTTCTGCA R F I F F C S CAGCTAGACC TCTTCTGTAG Q L D L F C R GTGGTTTATG CCCTACAGGA G L C P T G AACGGTCCAA AAGGAGATAG T V Q K E I D	GGCCCAGCCA GAGTGCCTGT G P A R V P V TTTTACAAGG GTTAGGACAA L Q G L G Q TGCAGCCGA GAGTTTGGCG A A R E F G D AGTGTAGACC CTCATTGGGA	S V D F H W D AGCCTATGAA TTACTCAATG P M N Y S M CTCCCTGTCA CCTGACTCTA S L S P D S I TTAGGCTCGG AACAAAACTT L G S E Q N L AAAAAAAAAG GGCCACCGCT K K R A T A	TTGCTTCCAG TGCGGTCTAC  C F Q C G L Q AAGGCCCACT GCCCCAGGG
Te Cac Tay of Te	AA ACC TA CAC O O CCA AACC	TTC GG VTG TT V V T T T CCC AC		25 4 25 5 26 2 3 13 13 13 13 13 13 13 13 13 13 13 13 1
PAGGAACCCC CTTTGGGTCC CCTCCCATTG TATGGGAGCT CTGTTTTCAC TCTATTTCAC TCTATTTAAAT CATGCAACTG CACTCTTCTG ( TTATGGCTC AAGCTGAGCT TTTGTTCGC ATCCACCACT GCTGTTTTGC ACCGCTACAG ACCGGCTGCT GACTTCCATC CCTTTGGATC TCCGCTGTGC TCCTGATCCA GCACAGGGG CATTGCTC TCCAAATTGG GCTAAAGGCT TGCCATTGTT CCTGCACAGC TAAGTGCCTG AATCGAGCTG AACACTAGTC ACAGGTTCTT TCCATGACCC ATGAAGGATC TTGGAAGCAGCA TTGGAAGCAGCA AGAACCCCAG GTCAGAGAATTT GGTGACCAGG AAGGGACCTG AATCGGCAAC CATGAAGGGA TCTCCAAAAGC TCTTGGGAGC TCTGGGAGCA AGGACCCCAG GTAACAATTT GGTGACCACG AAGGGACCTG AATCGGCAAC CATGAAGGGA TCTCCAAAAGC TCTTGGGAGC TCTGGGAGCA AGGACCCCAG GTAACAATTT GGTGACCACG AAGGGACCTG AATCGGCAAC CATGAAGGGA TCTCCAAAAGC	AGAATTGGGA CCAATGTGAC ACTCAGACGC TAAGAAAGAA ACGATTTATA TTCTTCTGCA  N W D Q C D T Q T L R K K R F I F F C S  CTGGCTTCCT GAGGAAGTA TAAATTATAA CATCATCTTA CAGCTAGAC TCTTCTGTAG  W L P E G S I N Y N I I L Q L D L F C R  TTCTTTTCAT TAAGAGACA CTCACAATTA TGTAAAAAAGT GTGGTTTATG CCCTACAGGA  F F S L R D N S Q L C K K C G L C P T G  CGACTCCTTC CTCAACTAAT AAGGACCCC CTTTAACCCA AAGGAGATAG  T P S S T N K D P P L T Q T V Q K E I D		د اسله د	
ATTAAAD CGCTGCT CATTGTT GAGCTAT AGCAGCC	ACTCAGACGC T Q T L TAAATTATAA N Y N CTCACAATTA S Q L AAGGACCCC K D P P	CAGTGAGAGG  V R G CCCTGACGGC P D G GAGAGAAGTG E R S A CAGGCCAGCA	TOTAGAAGG ACTGAGAAA LEGLRK CAGACTAAGG GAGCCATTGA RLREALR SACATTAGAA AAAAACTTCA TRKKLQ TRKKLQ NGGAGCAGGC AGAA/#5GGAC	ANTAGGAAGC N R K P TACGTCAAGG R Q G
NC TCT	T C ACTO	AG CAG N P CCC IAT GAC T E	AGG ACT G L G L AGG GAG SAA AAA K K K K K K K K K K K K K K K K K	GGCA AAI
TATGGGAGCT CTGTTTTCAC TCTATTTCAC TCTATTAAAD ATCCACCACT GCTGTTTGCC ACGGTCACA ACCGGTGCT CCATTGCCTC TCCCAATTGG GCTAAAGGCT TGCCATTGTT ACGGTTCTCT TCCATGACCC ATGGCTTCTA ATAGAGCTAT GTCAGAGAAC ACAAGGCTTG CCACCATGTT GGAAGCAGCC GTAACAATTT GGTGACCACG AAGGGACCTG AATCCGCAAC	AGAATTGGGA CCAATGTGAC ACTCAGACGC N W D Q C D T Q T L CTGGCTTCCT GAGGGAAGTA TAAATTATAA W L P E G S I N Y N TTCTTTTCAT TAAGAGACAA CTCACAATTA F F S L R D N S Q L CGACTCCTTC CTCAACTAAT AAGGACCCCC T P S S T N K D P P	CCCCTCCAAG  P L Q A  TCTCAGATAA  S D N  AACCCCAAAT  T P N  ACAACTCCCA	TCCTAGAAGG ACTGAGGAAA L E G L R K CAGACTAAGG GAGCCATTGI R L R E A L R GACATTAGAA AAAAACTTCA D I R K K L Q AGGAGCAGGC AGAA¶\$GGAC E Q A E W D	AAGCTGGGC S W.A CCATGCCC P C P
TTTCAC 1 TTTCC 2 AATTCC (IGACCC [IGACCC ] GGCTTC (IGACCC ] AACCACG	PBS AGAATTGGGA ( N W D CTGGCTTCCT W L P TTCTTTTCAT F F S L CGACTCCTTC T P S	CCGATTATGC R L C CTAGGTAAAT L G K F ATCAGACACT Q T L AGAGGAAAGA F F R	CTACTIGGG L T C V CTTTCTGGA F L D GTCAGCTGCA S A A AGAGATCAGG	GNAAAGGAA K G K GCCCCTTGT P P C/R
CTGT GCTG TCCC TCCA	AGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	C CCGAC C CTAGG L G L G L A ATCAC NC AGAGG		TG GAN
TATGGGAGCT ATCCACCACT CCATTGCCTC ACGGTTCTCT GTCAGAGAAC GTCAGAGAAC	PBS  GTTCCCCCG AGGCAAAAT GCCCCTAGAA CGTATTCTGG AGAATTGGGA  V P P E A K M P L E R I L E N W D  GTACCGCCTG GCCACAATAT CCTCTTCAAG GGAGAGAAAC CTGGCTTCCT  T A W P Q Y P L Q G R E T W L P  AAAGGAGGGC AAATGGAGTG AAGTGCCATA TGTGCAAACT TTCTTTTCAT  K E G K W S E V P Y V Q T F F S L  AGCCTCAGA GTCCACCTCC CTACCCAGC GTCCCCTCCC CGACTCCTTC  S P Q Y P S V P S P F S L	ACAAAGGGGT AAACAATGAA CCAAAGAGTG CCAATATTCC K G V N N E P K S A N I P ACCTITITCT CTCTCAGACT TAAAGCAAAT TAAAATAGAC P F S L S D L K Q I K I D TCCTTTGATC TGACATGGAG AGATATAATG TTACTACTAA S F D L T W R D I M L L L N ATCTTTGGTA TCTCAGTCAG GCCAACAATA GGATGACAAC I W V I S O A N N P W T T	CCA CAAACATTTG H K H L AGAA AATCTTACTG E N L T A AGT TTATCACTCA F I T Q GGT TTTTTATAAT V F Y N	AGGCTC G S AATAAG N K
NTTG TA CGCC AT SCGC CC TTCC AC CCAG GT	AGAA CCAAGG CCAAGG CCATA TX	S A AAAT TY AAAAT TY I I I I I I I I I I I I I I I I I I	GCCA C  HAGAA P  E N  FAAGT T  K F  CCGGT T	CTTT GG RATA GA N R
ITTGITK SCACAGG ACTGGGI AGAACCG	SCCCCTY  CCTCTTY  P L O  V P  CTACCC	CCAAGAGTG PKSA PKSA TAAAGCAAT TAAAGCAAT DIM DIM GGCAACAATA	ATTGGT  W C  AAAGGJ  K E  AAGGAJ  K D  CCAACCT	AGCGGA  A D  TGTCCA
CTTTGGGTCC CCTCCCATTG AAGCTGAGCT TTTGTTCGCC TCCTGATCCA GCACAGGCGC AACACTAGTC ACTGGGTTCC CGTGAGACCA AGAACCCCAG TCTGGGAGCA AGGACCCCAG	AGGCAAAAT GCCCCTAG A K M P L E GCCACAATAT CCTCTTCY P Q Y P L Q AAATGGAGTG AAGTGCC K W S E V P K W S E V P GTCCACCTC CTACCCY	N E SAGACT D. L ATGGAG W R W R AGTCAG	ATGGAG G D ACAGGG Q G ATCTTA I L ACTTGG	R O AAAGAT K D
CTTTG AAGCT TCCTG AACAC CGTGA	AGGCA A GCCAC P C AAATC K W GTCCA	N 1 CTCTK I S I TGAC	A GAAC E H A TAAC I ACTA L TTGAU	CCCTK TRAN
Cagcaaccc criticagnic cereceatra Transcer angertages recognises recognises and reasons and anticagnic cerecan angertages certicanic cetsagacca agaacccag retiggaat etrogaacca agaacccag	GTTCCCCCG AGGCAAAAT GCCCCTAGAA C V P E A K M P L E F GTACCGCCTG GCCACAATAT CCTCTTCAAG T A W P Q Y P L Q G AAAGGAGGC AAATGGAGTG AAGTGCCATA K E G K W S E V P Y K E G K W S E V P Y AGCCTCAGA GTCCACCTC CTACCCAGC S P P Y S	CAAAGGGGT AAACAATGAA CCAAAGA K G V N N E P K S CCTTTTTCT CTCTCAGACT TAAAGCA P F S L S D L K Q CCTTTGATC TCACATGAGA AGATATA S F D L T W R D I ATCTTTGGTA TCTCCAGTCAG GCCAACA	CACAGAATCA GAACATGGAG ATTGGTGCCA TESEHGDWCH ATGTCCACTA TAACACAGGG AAAGGAAGAA MSTITCAAGCCA ACTAATCTTA AAGGATAAGT EGQLICKDKF AGAAACCCTA TTGAACTTGG CAACCTCGGT ETLLNLATS	TTAGTCATGG CCCTCAGGCA AGGGGACTIT  L V M A L R Q A D B  AAGGACACTT TAAAAAAGAT TGTCCAAATA  G H F K K D C P N R
CAGO TITIAN TOCOG NATICO COTTA	GTTC V P GTAC T AAAG K AGCC	ACCT ACCT P TCCT S F ATCT	CAC T ATG TTG	TTAG L V AAGG
14				

### 32/33

100	200	700	134	<b>\$</b> 00	600	234	267	300	1000	1100	1197
Trecreecer F L P S	TAGGCATTGA G I D	MCALATAAT R N K	MATCACAGG K S Q G	AGGCACTAGT A L V	CCAGGCGTTA Q A L	CTAACCCAGG	TOCTOTATOG	terranaca L K T	TCCCTAGACA S L D T	TCAMCCCTO	ACCOTGA P
AGGACATGGT G H G	ACCTTCCACT	MGTGTGCCA V C Q	CCACATGCCA H H P	GAGGTAATAA E V I K	AGGGAGTATC G V S	TCTAAACAAG L N K	CCATACAGAA P Y R N	ATCACAAGT Q Q V	TATTCCCCA M S P	CACACTCGAN	TCMGCMC
T S R	CTTCAGCAA	AGGCCTGTG	D F I	MAGTTCCAA K P Q	ACAGTAACCC T V T Q	TCAAACGACA K R H	AGGACTTAGC G L S	TTACCAAAT L A K Y	ccerrecere L P s	TTGGATACAT W I H	recorderer c t t F
NTAGAATGGG	L K T	CACATAGTE 1	SACTGGCAAC	GTAGGACAGA R T E	TTCAAGGCC F K A	ATGAHACAC	CCCAAAAGGC	CATCACCTCC I T S	TENGTCANGE L V K S	CAGTGCAGTC V E S	AGAGGATOTG E D L
AGANGANGAA J	CAMECAAAT	MACTATCAA (	CCCMGAGAA (	SCCTTCCCCT	Argereage G P A	GGTTGAGAAA V R K	CONNCTCTC Q N S P	TAGTTGCAGA V A D	TOTCATOOTA V K V	AMGTGGCTG	TICANCELET E P L
CCAGTACTC 1	SGCAGCTAAC O	SCCTTTICA 1	CAGGCAATTA G	TTGGCAGAG W A E	CAGAGTGACA Q S D N	CCTCAGGGAA	ACTANGAATC L R I	ATGGCCAACT K A H L	TCCACCCTOG H P G	AACTGCGGTT T A V	AGCIATHCE S Y F F
SAAACCAAGC O	ractimiser of the control of the con	ractogacca of G	E O R T	CTTCACTGG	CTGAGGCTTA G L	AGGCCACAAT R P Q S	CTATAGCCTT I A L	TGACCAAGAG D Q E	ANGAMATAT K E I P	TATCTATCCC S I P	GGACAACGCT D N A
בכככדכככה פ פינים איין	ANGGAAAAA	ATCATTATT S	rcmcaga o	TGGTAGATA	CGGACTTCC G L P	CTGCACCTAG	Generation A L L S	ACCITICISCI L L L	AGAGGAGGGA E E G	CCAGICATITY P V I L	AAAATCCAGG N P G
ATGGGGTAA 1 W G N	GCCACTGAA G	AGATAGCCA A	ATCGCCAAGC 7	הנדאכדאבדה נינייז	ATTCCCAGAT	NTCACTTACA H L H	COCATOSTCT A W S	CTAACCAATG	ceroreces c P R	AGGACCCTAC	AAGAACCG
GGACCCGTAG TATGGGGTAA TCCCCTCCGG GAAACGAAGC CCCAGTACTC AGAAGAAAAAAGGG GAACCTCACG AGGACATGGT TTCCTCCCCT $G \mid P V V W G N V V W G N P L R R R R R R R R$	CAGGATGGCT AGCCACTGAA GAAGGAAAAA TACTTTTGCT GGCAGCTAAC CAATGGAAAT TACTTAAAAAC CCTTCAGCAA ACCTTCCACT TAGGCATTGA G W L A T E E G K I L L L A A N Q W K L L K T L Q Q T P M L G I D	TAGCACCCAT CAGATAGCCA AATCATTATT TACTGGACCA GGCCTTTTCA AAACTATCAA GCAGATAGTC AGGGCCTGTG AAGTGTGCCA AAGAAATAAT S T <u>e</u> q i a k s l f t g p g l f k t i k q i v r a <u>c</u> e v <u>c</u> q r n n	CCCCTGCCTT ATCGCCAAGC TCCTTCAGGA GAACAAAGAA CAGGCAATTA CCCAAGAGAA GACTGGCAAC TAGATTTTAT CCACATGCCA MATCACAGG	GATTICAGIG ICTACTAGIC IGGGIAGATA CITICACIGG TIGGGCAGAG GCCTICCCCI GIAGGACAGA AAAGTICCAA GAGGIAATAA AGGCACTAGI F Q C L L 7 % V D T F T G W A E A P P C R T E K P Q E V I K A L V	TCATGAAGTA ATTCCCAGAT TCGGACTTCC CTGAGGCTTA CAGAGTGACA ATGGTCCTGC TTTCAAGGCC ACAGTAACCC AGGGAGTATC CCAGGCGTTA H E V I P R F G L P , G L Q S D N G P A F K A I V I Q G V S Q A L	GGININGNAT ATCACTINCA CTGCACCTAG AGGCCACAAT CCTCAGGGAA GGITGAGAAA ATGAMACAC TCAAAAGACA TCTAAAACAAG CTAACCCAGG	AAACCCACCT CGCATGGTCT GCTCTGTTGT CTATAGGAATC CAAAACTCTC CCCAAAAGGC AGGACTTAGC CCATACAGAA TGCTGTATGG T H L A W S A L L S I A L L R I Q N S P Q K A G L S P Y R W L Y G	ACGGICCTIC CTAACCAATG ACCTICTGCT TGACCAAGAG ATGGCCAACT TAGTIGCAGA CATCACCTCC TTAGCCAAAT ATCAACAAGT TCTTAAAACA R S F L T H D L L L D Q B K A H L V A D I T S L A K Y Q Q V L K T	THACAAGGAG CCTGTCCCCG AGAGGAGGA AAAGAAATAT TCCACCCTGG TGTCATGGTA TTAGTCAAGT CCCTTCCCTC TAATTCCCCA TCCCTAGACA	CATECTGGGG AGGACCCTAC CCAGTCATTT TATCTATCCC AACTGCGGTT AAGTGGCTG GAGTGGAGTC TTGGATACAT CACACTCGAA TCAAACCCTG S m G G P Y P V I L S I P T A V K V A G V E S W I H H T R I K P W	GATACTGCCG AAGGAACCCG AAAATCCAGG GGACAACGCT AGCTATTTCT TTGAACCTCT AGAGGATCTG TGCCTGCTCT TCAAGCAACA ACCGTGA I L P K E P E N P G D N A S Y F F E P L E D L C L L F K Q Q P

·							. 6
300 300	700	900	1100	1200	1400		1
CANADASAA CITGAAGAA GAMGAAAA AACAGAACA CENTICUT TAAAACAG GAAAATIC TGLTACCA GCAAGAAA KK N L K R E R S S K E K T V Y P I P L K A R V N F C L P S Q G I ATTICTATE AGGAAAAA CACTACACA AACTICAA AACTACACA AACTICAAAAAAAAAA	TIDE SOLD SLAAMTICOMANG COCHOCC CCCCTUTC ATCOTOG MAGAGAT CTOACTITE TIDES SOLD SLAAMTICOT TO SOLD SLAAMTICOT TA CONTINUE	OMACTETA TROMOTE TOTAGITUS CHANTEST TETTERITY CTROSTECA TROMOTE TOTAGET CITAGETT CONTINUE TO F L G P M A A I L L L L F F G P C I TITAGET CITAGET TOTAGET TOTAGET TOTAGET TOTAGET TAGET TOTAGET TAGET TAGET TOTAGET TOTAGET TAGET TAG	TROCHOR CUTGONCO AUCACIOC ACTICOCTA CUTGOGA TOUCICIO MAGACIAC ACTOCHOS CULTICITI COULTAGE ACTICOLO SE PER A	TENCHONCET CHITCHE TO PENCE THE CONTROLL OF THE SER SACHETY GASCETT TO SASHING THE SER SACHETY GASSING THE SER SACHETY GASSING THE CLASE SACHETY GASSING THE CLASE SACHETY GASSING THE CONTROLL OF THE CONTROLL OF THE CONTROLL OF THE CASE OF THE CONTROLL OF THE CASE OF THE CONTROLL OF THE CASE OF	-	ACTIOCTIC CONTINUE CHANA C PC L S P P R R G F L S C L P R G A G L R E H A A C P C L S P P R R G F L ADMONITOR ACTIVICA ACTIONATION CONCOLADA CONCO	THE A A L V R D P L R E A S W A P E S G G D L E N L Y V L B D C THANTONC ANTONOSC  K Y T N Q H